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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,356	01/25/2001	Yoichi Ose	58799-034	3617

7590

04/01/2003

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EXAMINER

ANDERSON, BRUCE C

ART UNIT

PAPER NUMBER

2881

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/768,356

Applicant(s)

OSE ET. AL.

Examiner

BRUCE C ANDERSON

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 1-25-01.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 is/are allowed.
- 6) ☐ Claim(s) 1-4 and 7-16 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3&4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 16 recites the limitation "the deflector" in line 11. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4, and 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Todokoro (629) /(358) in view of Breton (722)/ Matsumoto (735) and JP411067130A.

Todokoro (629) /(358) disclose a SEM comprising: an electron source; first and second (upper/lower) scanning deflectors; an objective lens having a lens gap; and a detector means for detecting secondary electrons. A conversion electrode (29) with an EXB (Wien) filter may also be utilized along with said detector means, as seen in Figure 3. It should be noted that said upper and lower deflectors are also considered as image shifting deflectors, as defined in applicants' claim 3 of the application and in the secondary references to Breton (722) (col.4, lines 49-50), and Matsumoto (735) (abstract lines 7-8). Note that in such SEM devices that a height measurement may be made, if desired (col.8, last paragraph Breton (722)).

As seen in the abstract of the secondary reference to JP411067130A, it is not unusual to have a first corrected, deflection magnetic field followed by a corrected, deflection electric field in order to correct for oblique or off-axis aberrations in a SEM, that has an objective lens and can produce a decelerating or retarding field.

The particular means for a corrected, deflecting electric field near the sample surface can be an electrostatic octopole, as seen in Figure 14 of Todokoro (629) /(358).

Hence, the SEM combination of at least two image shifting/deflection means with an objective lens to direct a primary electron beam onto a surface

and then detecting said secondary particles, with or without, a conversion electrode or Wien (energy) filter, is obviously taught by said primary reference in view of said secondary references.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Todokoro (629) /(358) in view of Breton (722)/ Matsumoto (735) and JP411067130A as applied to claims 1-4, and 8-16 above, and further in view of Plies (543).

Plies (543) furthermore discloses that a shielding electrode BG may be located above said electrostatic octopole in a SEM, if so desired.

#### ***Allowable Subject Matter***

7. Claims 5-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claim 17 is allowed.

#### ***Conclusion***


9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Todokoro (356) and (238) have cited show other continuing cases.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRUCE C ANDERSON whose telephone number is 703-308-4851. The examiner can normally be reached on MON.-FRI. 6:15AM-3:45PM (off ALT. FRI. ).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN LEE can be reached on 703-308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-2864 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
BRUCE C ANDERSON  
Primary Examiner  
Art Unit 2881

BCA  
April 15, 2002